



ISS On-Orbit Status Report

Month: May 2017

ISS Daily Summary Report – 5/12/2017

EXPRESS Pallet Controller Assembly (ExPCA) Extravehicular Activity (EVA) #42: EV1 Peggy Whitson and EV2 Jack Fischer performed the ExPCA EVA today. At the start of In-Suit Light Exercise (ISLE) Prebreathe, a water leak was discovered at the Service Cooling Umbilical (SCU) for Fischer's suit. The leaking SCU was subsequently disconnected and the functioning SCU was shared between the two EMU suits which impacted EMU battery capability, resulting in the EVA being shortened to 4 hours 12 minutes. During that time, the following tasks were completed:

Planned Tasks

- ExPCA R&R
- Pressurized Mating Adapter (PMA) 3 forward shield install

- Alpha Magnetic Spectrometer (AMS) 1553 terminator install
- Secure Multilayer Insulation (MLI) on Japanese Experiment Module Remote Manipulator System (JEMRMS)

Get-ahead Task

- COL Articulating Portable Foot Restraint (APFR) relocation to PMA3

Mobile Servicing System (MSS) Operations: Robotics Ground Controllers powered up the Mobile Servicing System (MSS) in support of today's EXPedite the PROcessing of Experiments to Space Station (ExPRESS) Carrier Avionics (ExPCA) EVA. IVA Crew Pesquet maneuvered the Space Station Remote Manipulator System (SSRMS) into position, then EV2 Fisher installed the Articulating Portable Foot Restraint (APFR) on the SSRMS Latching End Effector (LEE) and ingressed it. Pesquet then maneuvered the SSRMS for EV2 to remove and replace the failed ExPCA on the Express Logistics Carrier #4 (ELC-4) with the spare ExPCA. When the failed ExPCA was stowed, Pesquet maneuvered the SSRMS to position EV2 for APFR egress, then Pesquet backed the SSRMS to a park position.

Today's Planned Activities

All activities were completed unless otherwise noted.

- ECON-M. Observation and Photography
- Calf Measurement
- LAB BelAir Wireless Access Points (WAPs) Power down and Disconnect
- External Wireless EVA Inhibit
- ISS HAM Radio Power Down
- EVA COTS UHF Communication Unit (CUCU) Verify off
- USOS Window Shutter Close
- Extravehicular Activity (EVA) In-Suit Light Exercise (ISLE) Preparation

- USOS Extravehicular Activity (EVA) Communication Configuration
- CTTC routine ops (LF link and VHF receiver health check). Headset Audit
- Extravehicular Mobility Unit (EMU) Purge
- Study of veins in lower extremities
- Extravehicular Mobility Unit (EMU) In-Suit Light Exercise (ISLE) Prebreathe
- LCG stowage into the crew bag
- Orlan MK No. 5 CΦ unit deinstallation
- On MCC Go Transfer of brine and urine from EДB-Y to Progress 435 (DC1) Rodnik H2O Tank 2
- Orlan-MK No.5 УДЧК Pressure Gauge Deinstallation
- Removal of water tank from Orlan-MK No.5
- Crewlock Depress
- Stowage of pressurized gloves ГП-10KM into the crew bag
- Crewlock Post Depress
- Swapping electrical umbilical connector cover from Orlan-MK No.5 to Orlan-MK No.6
- Crewlock Egress
- SSRMS ExPCA R&R EVA Support
- Post-EVA Orlan-MK No.5 Equipment Stowage
- ExPRESS Carrier Avionics (ExPCA) Setup
- CALCIUM. Experiment Session 6
- ExPRESS Carrier Avionics (ExPCA) R&R
- Orlan No.5 Stowage in Progress 435 (DC1)
- AMS Terminator Install and Photo
- CP3 High Definition (HD) Camera Install [**Not performed due to shortened EVA**]
- CASKAD. Bioreactor Transfer TBY-B No. 04 at +4°C deg C. Deactivation of TBY-B thermostat No.02
- ExPRESS Carrier Avionics (ExPCA) Cleanup
- LAB Nadir EWC Antenna Install [**Not performed due to shortened EVA**]

- PMA3 Forward Shield Install
- Inventory of the Hardware Connected to the Outlets in RS
- PMA3 Forward Shield Install
- JEMRMS Multi-Layer Insulation (MLI) Repair
- LAB Nadir EWC Antenna Install [**Not performed due to shortened EVA**]
- Crewlock Ingress
- EVA Glove Photo Setup
- Crewlock Repress
- Extra Vehicular Activity (EVA) Post-EVA Activities
- Post Extravehicular Activity (EVA) Communication Deconfiguration
- EVA Glove Photo Downlink
- Extravehicular Activity (EVA) Camera Thermal Blanket Stow
- Extravehicular Activity (EVA) Camera Image Downlink
- Photo/TV Extravehicular Activity (EVA) GoPro Downlink
- External Wireless Instrumentation System (EWIS) Network Control Unit (NCU) Enable
- LAB BelAir Wireless Access Point (WAP) Connect Power Cable and Power ON

Completed Task List Items

- None

Ground Activities

All activities were completed unless otherwise noted.

- EVA Support

Three-Day Look Ahead:

- **Friday, 05/12: ExPCA EVA #42**

- **Saturday, 05/13:** Water dispensing for Electrowetting Drawer, Skinsuit height measurement, EVA camera disassembly/Airlock deconfig/debrief
- **Sunday, 05/14:** Crew off duty, Fluid Shifts hardware gather, Ultrasound setup in Russian Segment
- **Monday, 05/15:** Genes In Space, Fluid Shifts/Chibis, NRCSD #11 CubeSat deploy, OsteoOmics biocell fixation

QUICK ISS Status – Environmental Control Group:

Component	Status
Elektron	On
Vozdukh	Manual
[CKB] 1 – SM Air Conditioner System (“SKV1”)	Off
[CKB] 2 – SM Air Conditioner System (“SKV2”)	On
Carbon Dioxide Removal Assembly (CDRA) Lab	Standby
Carbon Dioxide Removal Assembly (CDRA) Node 3	Operate

Major Constituent Analyzer (MCA) Lab	Operate
Major Constituent Analyzer (MCA) Node 3	Standby
Oxygen Generation Assembly (OGA)	Process
Urine Processing Assembly (UPA)	Standby
Trace Contaminant Control System (TCCS) Lab	Full up
Trace Contaminant Control System (TCCS) Node 3	Off

Bill Keeter / May 12, 2017 / 2017, May



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